## **CLAIMS**

## What is claimed is:

1. A validation method comprising the steps of:

identifying a host within a grid environment, wherein said host is a software object;

associating a ghost agent with said host;
replicating actions of said host within said ghost agent;
comparing data related to said replicated actions with validation data;
generating validation output based upon said comparing step; and,
moving said ghost agent within said grid environment.

2. The method of claim 1, further comprising the steps of:

inputting at least one performance specification into said ghost agent, wherein said validation data comprises said performance specification; and,

determining at least one performance metric for at least one of said replicated actions, wherein said comparing step compares said performance metric with said performance specification.

3. The method of claim 1, further comprising the steps of:

inputting at least one resource utilization specification into said ghost agent, wherein said validation data comprises said resource utilization specification; and,

determining at least one resource utilization metric for at least one of said replicated actions, wherein said comparing step compares said resource utilization metric with said resource utilization specification.

4. The method of claim 1, further comprising the steps of:

inputting at least one load specification into said ghost agent, wherein said validation data comprises said load specification; and,

determining at least one load metric resulting from the execution of at least one of said replicated actions, wherein said comparing step compares said load metric with said load specification.

5. The method of claim 1, further comprising the steps of: executing a test routine;

generating test output for said test routine, wherein said validation data comprises said test output; and,

determining output for at least one of said replicated actions, wherein said comparing step compares said replicated action output with said test output.

- 6. The method of claim 5, further comprising the steps of: inputting said test routine into said ghost agent; and, executing said test routine within said ghost agent.
- 7. The method of claim 1, further comprising the steps of: moving said host within said grid environment; and, responsively moving said ghost agent in accordance with movement of said host.
- The method of claim 1, further comprising the steps of:
   identifying a location for recording validation output that is external to said ghost agent; and,

conveying said validation output to said identified location.

9. The method of claim 1, further comprising the steps of:

determining whether said ghost agent satisfies validation criteria based upon said comparing step; and,

including a compliance indicator within said validation output based upon said determining step.

10. The method of claim 1, further comprising the steps of: selecting a plurality of hosts; and,

for each selected host, repeating said associating step, said replicating step, said comparing step, and said generating step.

## 11. A system for validating data comprising:

a plurality of hosts, wherein said hosts are software objects distributed within a plurality of locations within a grid environment;

at least one ghost agent associated with one of said hosts, wherein said ghost agent is further configured to compare validation data with data relating to said associated host, and wherein said ghost agent can move within said grid environment; and.

a validation application configured to manage validation operations performed by said ghost agents.

12. The system of claim 11, wherein at least a portion of said hosts move from one grid within said grid environment to another grid, and wherein said ghost agents responsively move from grid to grid in accordance with movement of said associated host.

## 13. The system of claim 11, further comprising:

a validation interface configured to permit authorized users of said validation application to access features of said validation application.

14. The system of claim 11, further comprising:

a test application configured to manage test operations performed by said ghost agents.

15. The system of claim 11, further comprising:

a validation data store configured to record validation output generated by said ghost agents.

16. A ghost agent comprising:

an interface for associating said ghost agent with a host;

a validater configured to compare validation data with data relating to said host; and,

a ghost controller for managing interactions between said ghost agent and a grid environment, wherein said ghost agent automatically moves within said grid environment to follow movements of said host.

- 17. The ghost agent of claim 16, further comprising:
- a ghost identifier configured to identify said ghost agent to components within said grid environment.
- 18. The ghost agent of claim 16, further comprising:a ghost log configured to record validation output.
- 19. The ghost agent of claim 16, further comprising:a test engine configured to manage test routines.
- 20. The ghost agent of claim 16, further comprising: means for disassociating said ghost agent from said host; and, means for associating said ghost agent with a different host.
- 21. A machine-readable storage having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

identifying a host within a grid environment, wherein said host is a software object;

associating a ghost agent with said host;
replicating actions of said host within said ghost agent;
comparing data related to said replicated actions with validation data;
generating validation output based upon said comparing step; and,
moving said ghost agent within said grid environment.

22. The machine-readable storage of claim 21, further comprising the steps of:

inputting at least one performance specification into said ghost agent, wherein said validation data comprises said performance specification; and,

determining at least one performance metric for at least one of said replicated actions, wherein said comparing step compares said performance metric with said performance specification.

23. The machine-readable storage of claim 21, further comprising the steps of:

inputting at least one resource utilization specification into said ghost agent, wherein said validation data comprises said resource utilization specification; and,

determining at least one resource utilization metric for at least one of said replicated actions, wherein said comparing step compares said resource utilization metric with said resource utilization specification.

24. The machine-readable storage of claim 21, further comprising the steps of:

inputting at least one load specification into said ghost agent, wherein said validation data comprises said load specification; and,

determining at least one load metric resulting from the execution of at least one of said replicated actions, wherein said comparing step compares said load metric with said load specification.

25. The machine-readable storage of claim 21, further comprising the steps of: executing a test routine;

generating test output for said test routine, wherein said validation data comprises said test output; and,

determining output for at least one of said replicated actions, wherein said comparing step compares said replicated action output with said test output.

26. The machine-readable storage of claim 25, further comprising the steps of: inputting said test routine into said ghost agent; and, executing said test routine within said ghost agent.

- The machine-readable storage of claim 21, further comprising the steps of: moving said host within said grid environment; and, responsively moving said ghost agent in accordance with movement of said host.
- 28. The machine-readable storage of claim 21, further comprising the steps of: identifying a location for recording validation output that is external to said ghost agent; and, conveying said validation output to said identified location.
- 29. The machine-readable storage of claim 21, further comprising the steps of:
  determining whether said ghost agent satisfies validation criteria based upon said
  comparing step; and,

including a compliance indicator within said validation output based upon said determining step.

30. The machine-readable storage of claim 21, further comprising the steps of: selecting a plurality of hosts; and, for each selected host, repeating said associating step, said replicating step, said

comparing step, and said generating step.

31. A system for validating data comprising:
a host within a grid environment, wherein said host is a software object;
means for associating a ghost agent with said host;
means for replicating actions of said host within said ghost agent;
means for comparing data related to said replicated actions with validation data;
means for generating validation output based upon said comparing step; and,
means for moving said ghost agent within said grid environment.